

DEPARTMENT of ENVIRONMENTAL SERVICES
Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: ADAMS POND	Lake Area (ha): 8.38
Town: DERRY	Maximum depth (m): 1.5
County: Rockingham	Mean depth (m): 0.5
River Basin: Merrimack	Volume (m ³): 42000
Latitude: 42°55'05" N	Relative depth: 0.5
Longitude: 71°16'36" W	Shore configuration: 2.05
Elevation (ft): 320	Areal water load (m/yr): 87.79
Shore length (m): 2100	Flushing rate (yr ⁻¹): 175.0
Watershed area (ha): 1525.9	P retention coeff.: 0.25
% watershed ponded: 0.6	Lake type: artificial

BIOLOGICAL:

7 September 1993

DOM. PHYTOPLANKTON (% TOTAL)	#1	DINOBRYON 85%
	#2	
	#3	
PHYTOPLANKTON ABUNDANCE (cells/mL)		970
CHLOROPHYLL-A (µg/L)		8.89
DOM. ZOOPLANKTON (% TOTAL)	#1	ASPLANCHNA 40%
	#2	NAUPLIUS LARVA 24%
	#3	BOSMINA 18%
ROTIFERS/LITER		113
MICROCRUSTACEA/LITER		105
ZOOPLANKTON ABUNDANCE (#/L)		218
VASCULAR PLANT ABUNDANCE		Very abundant
SECCHI DISK TRANSPARENCY (m)		1.0 Visible on bottom
BOTTOM DISSOLVED OXYGEN (mg/L)		8.3
BACTERIA (E. coli, #/100 ml)	#1	5
	#2	
	#3	

SUMMER THERMAL STRATIFICATION:

not stratified

Depth of thermocline (m): None
Hypolimnion volume (m³) : None
Anoxic volume (m³) : None

CHEMICAL:

Lake: ADAMS POND

Town: DERRY

		7 September 1993			
DEPTH (m)			0.5		
pH (units)			7.3		
A.N.C. (Alkalinity)			15.2		
NITRATE NITROGEN			< 0.02		
TOTAL KJELDAHL NITROGEN			0.64		
TOTAL PHOSPHORUS			0.019		
CONDUCTIVITY (μ mhos/cm)			116.4		
APPARENT COLOR (cpu)					
MAGNESIUM			1.26		
CALCIUM			8.9		
SODIUM			10.6		
POTASSIUM			2.15		
CHLORIDE			18		
SULFATE			8		
TN : TP			34		
CALCITE SATURATION INDEX			1.9		

All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1993

D.O. S.D. PLANT CHL TOTAL CLASS

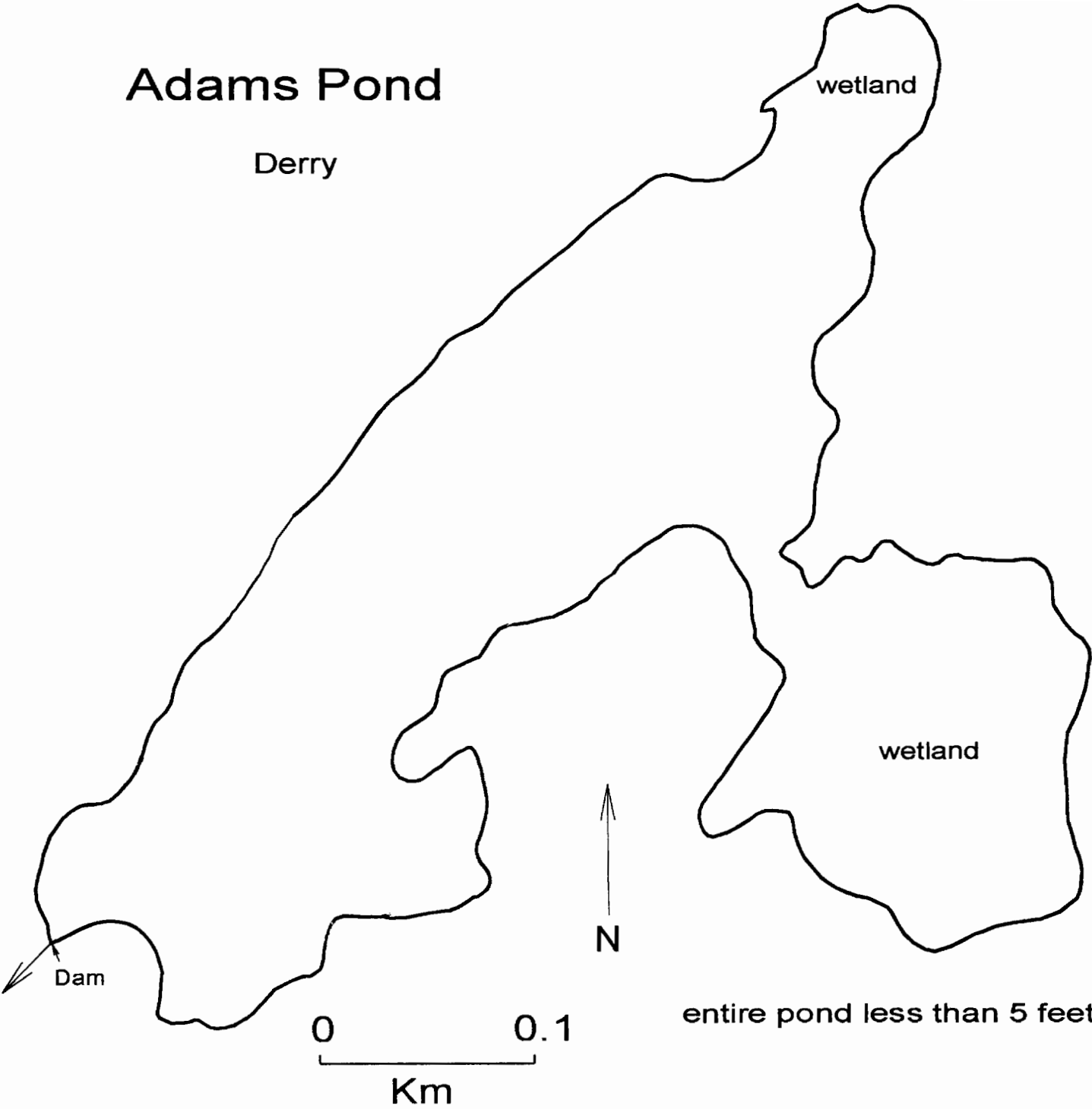
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COMMENTS:

1. This is a private, man-made pond. It lies in the watershed of Beaver Lake, Derry, and was surveyed as part of a diagnostic/feasibility study of Beaver Lake. No winter samples were collected.
2. Navigation, even by canoe, was hindered in many areas because of the dense bladderwort growth and organic muck.
3. Wholewater phytoplankton was dominated by Cryptomonas (27%), Peridinium (25%) and Chroomonas (18%).

Adams Pond

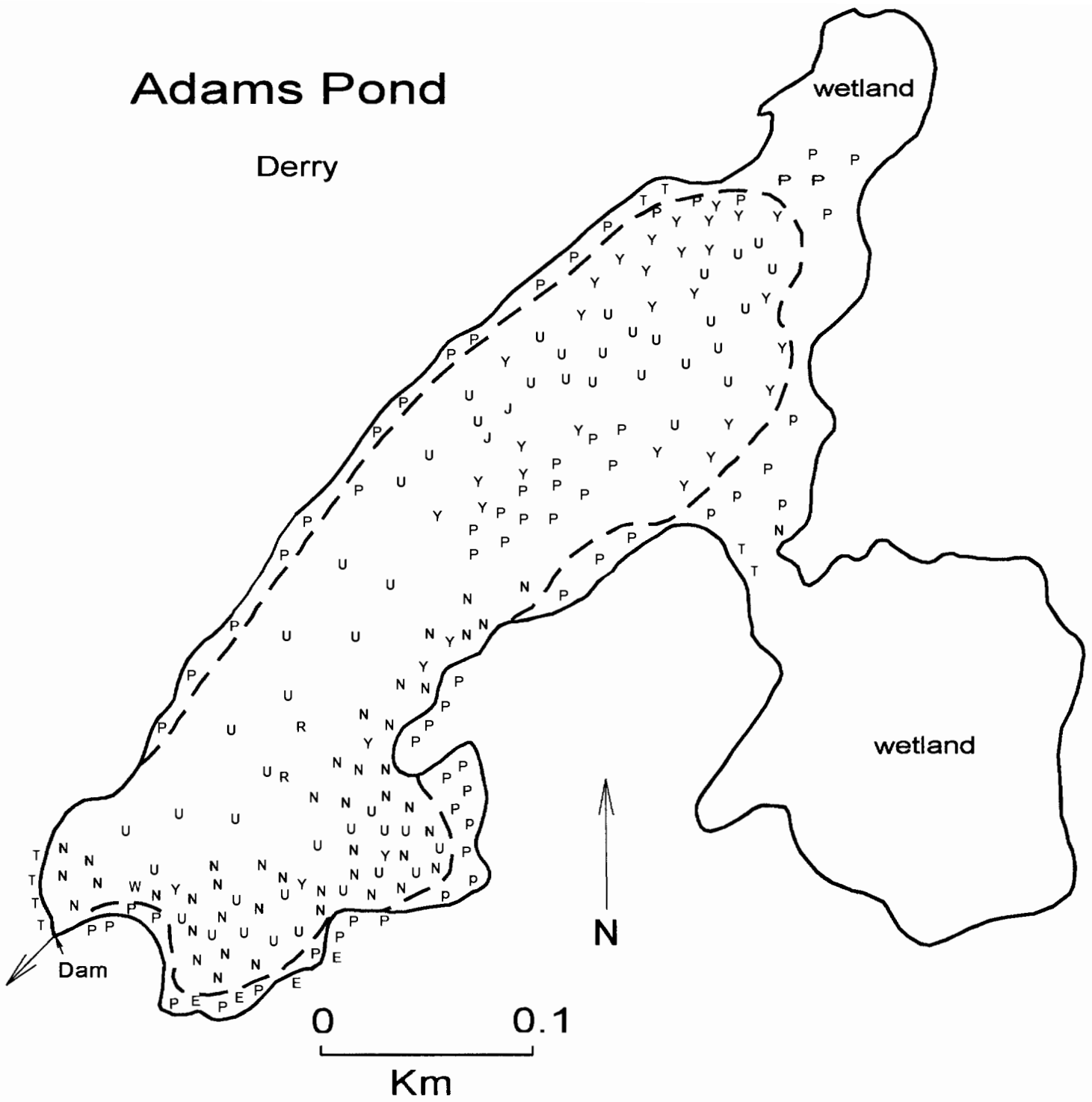
Derry



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Adams Pond

Derry



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